

ABSTRACT

OPTICAL TRANSMISSION OF ERROR CONTROL DATA

5 The present invention provides a method of optical data
transmission whereby digital information data and its
associated error control data may be transmitted via an
optical transmission line without requiring an increase
in the transmission bit rate of the information data. It
10 will be clear that this may be achieved, according to the
present invention, by obviating the need to transmit
information data and its associated error control data
together via the same WDM transmission channel. That is
to say, a subset of one or more WDM transmission channels
15 is used in transmitting data of the first type, but not
simultaneously used in transmitting data of the second
type. The data of the second type is transmitted via a
different subset of one or more other WDM transmission
channels.

20 In this way, the present invention aims to mitigate the
aforementioned penalties associated with increasing the
bit rate on an optical transmission channel in order to
accommodate redundant bits associated with bit error
25 control. In particular, by transmitting channel-encoded
data employing wavelength division multiplexing (WDM) the
present invention provides a method whereby one subset of
the WDM channels of an optical transmission line is
employed for the transmission of data including
30 information data ('information channels') but excluding
error data, and another separate subset is employed for
the transmission of the error control data ('error
channels') associated with aforementioned information data

[illegible]

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